

WHAT IS CLAIMED IS:

1. A color reproduction system with drift correction, comprising:
 - a scanner for scanning a document to generate scanned image data representative of the document, the scanned image data providing a color representation of the document;
 - an output device for generating an output document in response to print ready data; and
 - an image processing system receiving the said scanned image data and generating the print ready data, the image processing system device further comprising
 - a calibration target comprising a set of digital signals representing a plurality of color test patches,
 - a calibration conversion processor for converting the scanned image data into a set of device independent color signals,
 - a calibration processor for computing a set of color shift correction signals by comparing the device independent color signals representative of a printed version of said calibration target with the stored representation thereof, and,
 - an adjustment processor operating to adjust a characteristic of the print ready data in response to said color shift correction signals.
2. The apparatus of claim 1 wherein the conversion processor uses a 3 dimensional lookup table.
3. The apparatus of claim 1 wherein the characteristic of the print ready data that is adjusted is the tone reproduction compensation curve.
4. The apparatus of claim 1 wherein the characteristic of the print ready data that is adjusted is the halftone dot.

5. The apparatus of claim 1 wherein the characteristic of the print ready data that is adjusted is done in such a way as to maintain the overall gray balance of the output device.
6. The apparatus of claim 1 wherein the characteristic of the print ready data that is adjusted is done in such a way as to maintain the a predetermined tone reproduction curve.
7. The apparatus of claim 1 wherein the calibration target has a plurality of patches that are neutral or near neutral in color.
8. The apparatus of claim 1 wherein the scanner may be separate from the other elements and connected thereto by a network.
9. A method of maintaining the reproduction properties of a color reprographic device comprising:
causing the device to print a copy of a stored test pattern containing a plurality of colored patches;
scanning the printed target with a scanner to obtain a first set of color signals;
processing said first set of color signals to obtain average values for the color of each patch in the test target;
further processing said average values using a color conversion processor to obtain device independent color values for each patch in the test target,
comparing the device independent color values to a stored set of standard values; and
from the comparison between the measured and the standard values deriving a correction that can be applied to the output means of the color reprographic device to restore it to a standard condition.
10. The method of claim 9, wherein the color conversion processor uses a 3 dimensional lookup table.
11. The method of claim 9 wherein the correction that is applied to the output means is a tone reproduction compensation curve.

12. The method of claim 9 wherein the correction that is applied to the output mean is a modification to its halftone dot.
13. The method of claim 9 wherein the correction that is applied to the output mean is done in such a way as to maintain the overall gray balance of the output device.
14. The method of claim 9 wherein the correction that is applied to the output means is done in such a way as to maintain the a predetermined tone reproduction curve.
15. The method of claim 9 wherein the scanner may be separate from the other elements and connected thereto by a network.